LOW DENSITY PARITY CHECK CODES FOR MULTIPLE CODE RATES

ABSTRACT OF THE DISCLOSURE

5   Puncture sequences S_1, S_2, etc. for code rates R_1, R_2, etc. less than a maximum code rate R_{max} are defined subsets of a maximum rate puncture sequence S_{max} that corresponds to the maximum code rate R_{max}. Each puncture sequence S_i for a code rate R_i is related to the puncture sequence S_{i-1} of the previous code rate R_{i-1}, and preferably $S_1 \subseteq S_2 \subseteq \ldots \subseteq S_{max-1} \subseteq S_{max}$. The puncture sequences are groups of one or more memory elements, each of

10   which is a variable degree, a variable node location, a check degree, or a check node location. A method for deriving such a puncture sequence for variable code rates is also disclosed.